

REMARKS

1. Claim Objections

Claims 1 and 11 were objected to for failing to particularly point out and distinctly
5 claim the subject matter which the applicant regards as the invention.

Response:

Claims 1 and 11 have been amended to claim, respectively, “a method for
determining the integrity of a possibly defected memory”. The applicant believes that this
10 amendment clearly claims the subject matter of the invention and should therefore
overcome the objection. During a test of memory integrity, sections that are originally
supposed to be marginally functional may turn out to be totally functional under “a
plurality of operating environments”. It is thereby emphasized in the claims that the
memory is “a possibly defected memory” since defects can only be confirmed after
15 proper testing.

2. Claim Rejections – 35 U.S.C. 112

Claim 8 was rejected under 35 U.S.C. 112, second paragraph, as being indefinite for
20 failing to particularly point out and distinctly claim the subject matter which the applicant
regards as the invention.

Response:

Claim 8 has been amended by replacing “can be” with “is” to clearly state that
25 when a number of defects in each of the plurality of operating environments are equal
then the memory is determined to have integrity.

3. Claim Rejections – 35 U.S.C. 103(a)

Claims 1 – 15 were rejected under 35 U.S.C. 103(a) as being unpatentable over Brauch et al. in view of Brennan, Ciaran J.

Response:

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Note is made by the applicant that according to the given publication number of Brennan, Ciaran J. (USPUBN: 2005/0134360), the patent publication corresponding to this number is actually disclosing invention made by Aipperspach et al. (USPUBN: 2005/0134360). It is believed that the publication number of Aipperspach et al. has been
10 mistakenly referred to and the applicant will treat Brennan et al. (USPUBN: 2005/0138496) as the correct prior art in its place.

Claims 1 and 11

Claims 1 and 11 teach setting a condition to be tested, repeatedly testing the
15 memory under variations of the condition to be tested (the plurality of operating environments), and then comparing the recorded results with each other to determine if the memory has integrity.

Brauch teaches testing of a memory and generation of a bitmap indicating location
20 of failed cells, the bitmap produced by comparing test results with expected results.

Brauch does not teach testing the memory under a plurality of operating environments, which is acknowledged by Examiner. Brennan teaches testing a memory under a plurality of operating environments. However, **Brennan does not teach comparing test results of the plurality of operating environments with one another**.
25 The point of testing the memory under the plurality of operating environments is to push weak cells to failure. As implied in limitations recited in claims 1 and 11 of applicant's application, even when failure of memory cells occurs, as long as the failure is constant across a plurality of operating environments, the memory can be determined to have

integrity. As neither Brauch nor Brennan teaches comparing test results of a plurality of operating environments with one another to determine memory integrity, the applicant asserts that the claimed limitations “comparing the recorded results for each of the plurality of operating environments” and “comparing the first result with the second result” recited in respective claims 1 and 11 are neither taught nor suggested by a combined teaching of Brauch and Brennan. Therefore, claims 1 and 11 overcome the rejections under 35 U.S.C. 103(a) and should be found allowable over the prior art.

Claims 2 – 3 and 12 – 13

Claims 2 – 3 and 12 – 13 are dependent on claims 1 and 11 respectively. As applicant believes claims 1 and 11 have been placed in a position for allowance, claims 2 – 3 and 12 – 13 should also be found allowable.

Claims 4 – 5 and 14 – 15

Claims 4 – 5 and 14 – 15 distinguish the condition to be tested. In claims 4 and 14 the condition to be tested is supply voltage and in claims 5 and 15 the condition to be tested is temperature. As is distinctly claimed in the base claims 1 and 11, the plurality of operating environments corresponds to **variations** in these conditions to be tested. Brennan teaches testing a memory under a higher timing stress under a plurality of conditions, examples given as: “a blanket read pattern, a checker board pattern, a high temperature-low voltage pattern, a low temperature-high voltage pattern, and different environmental conditions” (Para [0037]). Brennan does not teach testing the memory under variations of **the same condition**. Furthermore, as Brennan does not teach comparing the test results with each other, the applicant asserts that the limitations recited in claims 4 – 5 and 14 – 15 are neither taught nor suggested by teachings of Brennan. Additionally, claims 4 – 5 and 14 – 15 are dependent on claims 1 and 11 respectively. As applicant believes claims 1 and 11 have been placed in a position for allowance, claims 4 – 5 and 14 – 15 should also be found allowable.

Claims 6 – 7 and 9

Claims 6 – 7 and 9 are dependent on claim 1. As applicant believes claim 1 has been placed in a position for allowance, claims 6 – 7 and 9 should also be found allowable.

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Claims 8 and 10

Claims 8 and 10 further detail the comparing step of claim 1. As neither Brauch nor Brennan teaches **comparing test results** under different operating environments **with one another** to determine memory integrity, the limitations of claims 8 and 10 are not taught or suggested by Brauch and Brennan, alone or in combination. Moreover, it is neither taught nor suggested by Brauch or Brennan that when positions and numbers of defects are the same under each operating environment that the memory is determined to have integrity. Furthermore, claims 8 and 10 are dependent on claim 1. For at least these reasons detailed above, the applicant asserts that claims 8 and 10 should be found allowable.

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4. Patentability of New Claims 16 – 20

New claims 16 – 20 have been added to include limitations fully supported by the specification. No new matter is introduced. Consideration of the newly added claims 16 – 20 is respectfully requested.

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Claims 16 and 17 are dependent on claim 11. As the applicant believes claim 11 has been placed in a position for allowance, new claims 16 and 17 should also be found allowable.

Claims 18 – 20 belong to a new set. As claims 18 – 20 contain similar limitations to those of claims 1 and 11 and applicant believes claims 1 and 11 should be found allowable over the prior art, applicant respectfully submits that claims 18 – 20 are allowable as the prior art does not teach or suggest the limitations recited.

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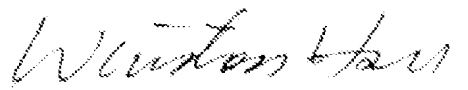
Conclusion

Accordingly, it is submitted that all of the pending claims are allowable over the cited references, and that this application is in condition for allowance. Such action and the passing of this case to issue are therefore respectfully requested.

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If the Examiner believes that a conference would be of value in expediting the prosecution of this application, the Examiner is hereby invited to telephone the undersigned counsel to arrange for such a conference.

10 Sincerely yours,



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Note: Please leave a message in my voice mail if you need to talk to me. (The time in D.C.
20 is 12 hours behind the Taiwan time, i.e. 9 AM in D.C. = 9 PM in Taiwan.)